

Claim 83. (Previously Presented) A method as defined in Claim 65, wherein at least one of the recessed notches of the outer periphery has sharp edges.

Claim 84. (Previously Presented) A method as defined in Claim 70, wherein at least one of the notches recessed from the outer periphery has sharp edges.

Claim 85. (Previously Presented) A method as defined in Claim 76, wherein at least one of the recessed notches on the outer periphery has sharp edges.

### **REMARKS**

#### **35 U.S.C. 112 Rejection**

Claims 82-85 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. More specifically, the Examiner considers the language in these claims relating to the outer periphery of the filter unit having sharp edges to be new matter. The Examiner indicates that there is "no discussion of the issue of edge sharpness" in the originally filed disclosure.

Applicant respectfully disagrees with the Examiner's rejection, and has maintained the claims as previously presented. Applicant submits that §112 does not require that the disclosure include a "discussion" of the claimed subject matter. For example, under proper circumstances, the drawings alone may provide a written description of an invention under §112. *See Cooper Cameron v. Kvaerner Oilfield*, 291 F. 3d 1317 (Fed. Cir. 2002). Drawings constitute an adequate description if they describe what is claimed and convey to those of skill in the art that the patentee actually invented what is claimed. *Id.*

FIGS. 5, 6, 7, 8, 9, 10, 11 and 13 of the drawings in Applicant's originally filed disclosure all show embodiments of the filter unit having three or more sides. The sides of each unit connect such that sharp edges or corners are formed on the outer periphery of the unit. In connection therewith, paragraph [0012] of Applicant's published application teaches that the units may have "substantially any polygonal configuration, such as triangles, quadrilaterals and pentagons." Thus, to put it another way, the triangular, quadrilateral, pentagonal, and other

similarly shaped figures shown in the aforementioned drawings all, by definition, have three or more sharp corners or edges formed on their outer peripheries. This feature is prominently displayed in the drawings, and would be understood by one skilled in the art based solely upon viewing the drawings. The sharp edges on the units in the drawings are particularly distinguishable when compared with the units shown in FIGS. 4 and 12 on the same page, which have curved exterior peripheries and no sharp edges.

Applicant respectfully submits that the features in claims 82 - 85 are, at the least, described in the drawings, and are not new matter. Further, Applicant submits that claims 82 - 85 are patentably distinct from the cited references.

35 U.S.C. §103(a) Rejection – Kramer in view of Fulton, and further in view of Hung:

Claims 59, 61 – 67, and 69 – 81 were rejected under the provisions of 35 U.S.C. § 103(a), as allegedly being unpatentable over Kramer, US 4,615,796 (hereinafter "Kramer"), in view of "CE Refresher: Catalyst Engineering, Part 2" by John Fulton (hereinafter "Fulton"), and further in view of Hung et al., DE 3,539,195 (hereinafter "Hung").

In response to this rejection, Applicant has maintained the claims as previously presented, and hereby resubmits the arguments which were previously presented in Applicant's office action responses dated November 5, 2003, and February 17, 2005.

Further, Applicant hereby submits the enclosed supplement declaration from the inventor John N. Glover (hereinafter referred to as the "Supplemental Declaration"). As discussed in the original Declaration submitted with Applicant's Response to Office Action dated November 5, 2003, Mr. Glover has performed experiments comparing the ceramic filter units of the present invention with prior art ceramic units that are structurally similar to ceramic units, such as those found in Fulton and Kramer. These experiments showed that the units of the present invention displayed unexpected and surprising, advantageous fluid distribution properties. The experiments showed that there was a substantial increase in lateral distribution using the ceramic units of the present invention as opposed to the ceramic units with the shapes similar to those shown in Fulton and Kramer.

The enclosed Supplemental Declaration includes graphs which more clearly illustrate the results of one of these aforementioned experiments. More specifically, the maximum flow in a cell was determined by measuring the flow rates of each active cell and determining the highest flow rate of those cells. As shown in the graphs, lateral fluid distribution was improved when using the ceramic units of Product F (Exhibit 2) of the present invention compared with use of prior art ceramic units such as Product C (Exhibit 1), as illustrated by the lack of red or yellow shading for the Product F graph as compared to the Product C graph. These graphs more clearly illustrate the information contained in the original Declaration, and therefore no new information is being introduced in this Supplemental Declaration.

It should be again noted that according to the Applicant, to the best of his knowledge, the Fulton Ceramic Unit was not commercially available at the time of the experiments and thus could not be tested. (see page 2, ¶ 7). A similar commercially available unit ("Product C") was instead utilized. *Id.*

Therefore, in view of the foregoing information, Applicant submits that Claims 59, 61 – 67, and 69 – 81 are novel, not obvious and patentable in view of the cited prior art.

### **SUMMARY**

Claims 82 – 85 do not contain any new matter. Each of the cited prior art references is missing at least one element of the present invention. No motivation exists to combine the cited references. Even if the combination of the references were deemed proper, the combination does not disclose each element of the present invention.

In commenting upon the references and in order to facilitate a better understanding of the differences that are expressed in the claims, certain details of distinction between the references and the present invention have been mentioned, even though such differences do not appear in all of the claims. It is not intended by mentioning any such unclaimed distinctions to create any implied limitations in the claims. Not all of the distinctions between the prior art and Applicant's present invention have been made by Applicant. For the foregoing reasons, Applicant reserves the right to submit additional evidence showing the distinctions between Applicant's invention to be novel and nonobvious in view of the prior art.

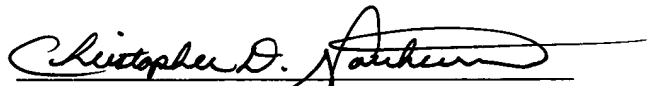
The foregoing remarks are intended to assist the Examiner in examining the application and in the course of explanation may employ shortened or more specific or variant descriptions of some of the claim language. Such descriptions are not intended to limit the scope of the claims; the actual claim language should be considered in each case. Furthermore, the remarks are not to be considered to be exhaustive of the facets of the invention that render it patentable, being only examples of certain advantageous features and differences which Applicant's attorney chooses to mention at this time.

In view of the foregoing Amendment, Applicant respectfully submits that the presently presented claims are allowable, and Applicant respectfully requests the issuance of a Notice of Allowance.

The Commissioner is hereby authorized to charge all fees and any additional fees that may be required or credit any overpayment to Bracewell & Giuliani LLP Deposit Account No. 50-0259 (Order No. 020781.004).

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Respectfully submitted,



Christopher D. Northcutt, Reg. No. 55,908  
for Ben D. Tobor, Reg. No. 27,760

**BRACEWELL & GIULIANI LLP**

P.O. Box 61389

Houston, Texas 77208-1389

Telephone: 713/221-1189

Telecopy: 713/437-5313

*ATTORNEYS FOR ASSIGNEE, CRYSTAPHASE  
INTERNATIONAL, INC.*